Energy Efficiency Project Early Action Compact

Shreveport, LA MSA

Background

- The Shreveport, LA MSA (Bossier, Caddo and Webster parishes) participated in the Early Action Compact (EAC) Program in anticipation of designations under the 8-hour ozone National Ambient Air Quality Standards
  - Considerable stakeholder involvement in EAC development
- The area was designated attainment for 8-hour ozone (69 FR 23858)

- EPA proposed approval of EAC SIP on May 12, 2005 (70 FR 25000)
  - Comment period ended June 13, 2005
- Expect final approval in September 2005

Energy Efficiency Project

- One of the EAC Local Control Measures Commitments
  - 20 Year Contract with Johnson Controls to Install Energy Conservation Equipment in 33 City Buildings
  - Will Reduce End-Use Demand for Electricity Which Should Reduce Generation at Nearby Power Plants Reducing Their NOx Emissions
    - Estimated NOx Reduction—0.041 tons per day

SIP

- Quantifying the Emission Reduction from Energy Efficiency Projects for SIPs is Complicated
  - Requires Determining
    - Which Power Plant's Emissions Will Be Reduced
    - Will Those Emissions Reductions Affect Attainability in the Nonattainment Area?

3 Methodologies

- Economic Dispatch from LSUCES
- Power Control Area Dispatch from EPA
- Plant Average from NREL

Comparison of Different NOx Emission Factor Estimates (lbs/MWh)

- Economic Dispatch – 2.85
- Power Control Area Dispatch – 3.37
- Plant Average – 1.95 to 4.63
- Savings – 9,121,335 kWh/yr
- LA DEQ Chose to Use the Average of the Results from Each Methodolgy -- 3.30 for quantification in the SIP

Observations and Conclusion

- NOx Reductions Almost Inconsequential
- Shreveport Area in 8-Hour Ozone Attainment (current DV 77 ppb)
- EPA's Proposal of Approval of Shreveport EAC May Rest on Bullets 1 and 2 Above
- Had Shreveport Area Been Classified as Nonattainment/Deferred or the NOx Reductions been Larger, EPA May Have Required More Detailed Analysis

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http://www.deq.louisiana.gov/evaluation